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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Kenneth Guild

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EXAMINER

BELLO, AGUSTIN

ART UNIT

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2613

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/521,339	Applicant(s) GUILD, KENNETH	
	Examiner Agustin Bello	Art Unit 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 13-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 13 recites "at the target node cross-connect dropping the at least two wavelength channels at outputs of different switching matrices provided for different wavelengths." However, there being only one switching matrix per optical cross-connect it is not clear how the target node cross-connect is able to drop the at least two wavelength channels at outputs of different, and therefore more than one, switching matrices.
3. Claim 13 recites the limitation "outputs of different switching matrices" in line 10. There is insufficient antecedent basis for this limitation in the claim since applicant's amendment has removed the previously disclosed plurality of switching matrices.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 13-15, *as best understood in view of the 35 USC §112 rejection above*, are rejected under 35 U.S.C. 102(e) as being anticipated by Feuer (U.S. Patent Application Publication No. 2006/00153563).

Regarding claim 13, Feuer teaches a method of transmitting information from a start node (i.e. the leftmost middle node in Figure 3) to a target node (e.g. any of nodes 303 in Figure 3) in a wavelength division multiplex optical communications network having a plurality of nodes, each of which includes a wavelength selective optical cross-connect (reference numeral 307 in Figure 3; reference numerals 501, 504 in Figure 5 broadly considered as optical cross-connects; and according to the description in paragraph [0037] where each subscriber node also includes the same elements as the leftmost central node in Figure 3) having one switching matrix (reference numeral 307 in Figure 3; reference numeral 501 in Figure 5; and 307 in each subscriber node as described in paragraph [0037]) for switching wavelength channels of each specific wavelength, the method comprising the steps of: applying at least two wavelength channels having different wavelengths but which are modulated with the same information to an input of the respective switching matrices (reference numeral 307 in Figure 3; and 307 in each subscriber node as described in paragraph [0037]) of the start node cross-connect provided for these wavelengths; transmitting the at least two wavelength channels to the target node cross-connect (e.g. any of nodes 303 in Figure 3); and at the target node cross-connect dropping the at least two wavelength channels (e.g. 193.0 THz, 192.2 THz, 192.6 THz in Figure 3) at outputs of different switching matrices provided for the different wavelengths (reference numeral 501, 504 in Figure 5).

Regarding claim 14, Feuer teaches the method according to claim 13, and the step of routing the at least two wavelength channels via different intermediate cross-connects between the start node and target node cross-connects (inherent in the bi-directional nature of the network).

Regarding claim 15, Feuer teaches the method according to claim 14, and the step of keeping the wavelengths of the at least two wavelength channels during transmission between the start node and target node cross-connects (inherent in the presence of the same wavelength at the start node and the end node).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feuer in view of Graves (U.S. Patent No. 7,212,739).

Regarding claim 16, Feuer teaches the method according to claim 14, but differs from the claimed invention in that Feuer fails to specifically teach the step of modifying the wavelength of at least one of the wavelength channels at an intermediate node cross-connect. However, Graves teaches that modification of a wavelength at an intermediate node crossconnect is well known in the art (reference numeral 14 in Figure 2). One skilled in the art would have been motivated to modifying the wavelength of at least one of the wavelength channels at an intermediate node cross-connect in order to allow conversion from one wavelength to another wavelength.

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Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the wavelength of at least one of the wavelength channels at an intermediate node cross-connect.

Regarding claim 17, Feuer teaches the method according to claim 16, and the step of jointly defining routing paths of the at least two wavelength channels by a central network controller (reference numeral 301 in Figure 3) operative for choosing the different wavelengths for transmission between a last intermediate node cross-connect and the target node cross-connect.

Regarding claim 18, the combination of Feuer and Graves teaches the step of dividing the wavelengths transmissible in the optical network into at least two groups (e.g. Multicast and Unicast of Feuer), and the step of selecting the wavelengths of the at least two wavelength channels from different groups (as seen in Figure 5 of Feuer), each wavelength modification of one of the channels at an intermediate node cross-connect occurring between wavelengths of a same group (reference numeral 14 in Figure 2 of Graves).

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection, namely the 112 Second Paragraph rejection noted above.

In giving a 112 rejection, the examiner would like to point out that the claim recites that start node includes “switching matrices” thereby indicating that more than one matrix is part of the starting node. However, the preamble of the claim clearly indicates that each of the nodes includes only one switching matrix. This mismatch in the number of switch matrix in each node

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occurs again when applicant recites the limitations of the target node as including "different switching matrices."

8. Applicant's arguments filed 01/23/08 have been fully considered but they are not persuasive. As noted above, Feuer appears to continue to read on the claimed invention as amended.

More specifically, Feuer clearly teaches that each node includes a wavelength selective optical cross-connect such as 307 in Figure 3, 501 and 504 in Figure 5 when the terms "optical cross connect" are given their broadest reasonable interpretation as simply meaning distribution equipment used terminate and administer communication circuits, and further when Feuer's paragraph [0037] is taken into account which extends the elements of the leftmost middle node in Figure 3 to each of the subscriber nodes, thereby including the modulator and cross-connect of that node in each of the subscriber nodes. As to applicant's argument that Feuer fails to provide disclosure of switching matrices used within the various nodes, the examiner notes again that Feuer provides elements 307, 501, and 504 which switch an optical signal from one direction to another, thereby meeting applicant's claim to switching matrices when give the broadest reasonable interpretation.

As to applicant's argument that Feuer fails to specifically teach that each of the at least two wavelengths are modulated with the same information, the examiner notes that Feuer specifically provides for this given that a single stream of multicast data is provided to a single modulator (308) which then modulates each of the multicast wavelengths (409-412 in Figure 4) with the information of the multicast data stream.

Finally, and in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., protection switching using separate working and protection channels) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (571) 272-3026. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Agustin Bello/

Primary Examiner, Art Unit 2613